

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) An apparatus for transmitting uncompressed video data across a network, comprising:

a video input that receives an uncompressed video signal;

a video predictive coding module coupled to the video input, wherein the video predictive coding module performs video predictive coding on the video signal in real time to create a video predictive coded signal;

wherein the predictive coding comprises:

delaying a first line of the composite video signal, and

subtracting a second line of the composite video signal from the first line of the composite video signal to create the video predictive coded video signal;

a delay module coupled to the video input to delay a line of the uncompressed video signal;

a subtraction module coupled to the delay module, wherein the subtraction module subtracts a subsequent line of the video signal from the delayed line of the video signal; and

a network interface coupled to the video predictive coding module and coupled to the network, wherein the network interface transmits the video predictive coded signal across the network concurrently with the video predictive coding module performing video predictive coding in real time.

2. (Previously Presented) The apparatus for transmitting uncompressed video data according to claim 1, wherein the network comprises at least one of a Fast Ethernet network and an Ethernet network faster than Fast Ethernet and the video signal comprises at least one of a composite and digital video signal.

3. (Canceled)

4. (Previously Presented) The apparatus for transmitting uncompressed video data according to claim 1, wherein the delay module comprises a line buffer and wherein the line buffer delays a line of the video signal to create the delayed line of the video signal.

5. (Previously Presented) The apparatus for transmitting uncompressed video data according to claim 1, further comprising a timing control module coupled to the video input and coupled to the video predictive coding module, wherein the timing control module controls the timing of the video predictive coding module.

6. (Previously Presented) The apparatus for transmitting uncompressed video data according to claim 1, further comprising a channel allocation module, wherein the channel allocation module reserves a channel of the Ethernet network for transmitting the video predictive coded signal according to the priority of the video predictive coded signal.

7. (Previously Presented) The apparatus for transmitting uncompressed video data according to claim 1, further comprising an analog to digital converter, wherein the video signal comprises a digitized video signal and the analog to digital converter converts an input video signal into the digitized video signal.

8. (Previously Presented) The apparatus for transmitting uncompressed video data according to claim 1, wherein the video predictive coded signal comprises at least one line comprising a plurality of pixels.

9. (Currently Amended) An apparatus for receiving uncompressed video data, comprising:

- a network interface that receives a video predictive coded signal from a network;
- a subtraction module coupled to the network interface;

- a video predictive decoding module coupled to the network interface, wherein the video predictive decoding module performs video predictive decoding on the video predictive coded signal in real time to create a video predictive decoded signal;

wherein the predictive decoding comprises:

delaying a line of a decoded video signal, and
subtracting a line of the video predictive coded multimedia signal from the
first line of the decoded video signal to create the video predictive decoded video signal;

a delay module coupled to the subtraction module, wherein the subtraction module subtracts a subsequent line of the video predictive coded signal from a line of the video predictive decoded signal delayed by the delay module; and

a video output coupled to the video predictive decoding module, wherein the video output outputs the video predictive decoded signal in real time.

10. (Previously Presented) The apparatus for receiving uncompressed video data according to claim 9, wherein the network comprises at least one of a Fast Ethernet and higher network and the video signal comprises at least one of a composite and digital video signal.

11. (Canceled)

12. (Previously Presented) The apparatus for receiving uncompressed video data according to claim 9, wherein the delay module comprises a line buffer and wherein the line buffer delays a line of the video predictive decoded signal to create a delayed line of the video predictive decoded signal.

13. (Previously Presented) The apparatus for receiving uncompressed video data according to claim 9, further comprising a timing control module coupled to the video output and coupled to the video predictive decoding module, wherein the timing control module controls the timing of the video output.

14. (Previously Presented) The apparatus for receiving uncompressed video data according to claim 13, wherein the timing control module comprises:
a clock generation module coupled to the video predictive decoding module; and
a memory control module coupled to the video predictive decoding module.

15. (Previously Presented) The apparatus for receiving uncompressed video data according to claim 9, further comprising a channel allocation module, wherein the channel allocation module reserves a channel of the Ethernet network for transmitting the video predictive coded signal according to the priority of the video predictive coded signal.

16. (Previously Presented) The apparatus for receiving uncompressed video data according to claim 9, further comprising a digital to analog converter, wherein the digital to analog converter converts the video predictive decoded signal into an output video signal.

17. (Previously Presented) The apparatus for receiving uncompressed video data according to claim 9, wherein the video predictive coded signal comprises at least one line comprising a plurality of pixels.

18. (Previously Presented) A method of transmitting uncompressed multimedia data over a network comprising:

receiving a an uncompressed multimedia signal;

performing video predictive coding on the multimedia signal to create a video predictive coded multimedia signal, wherein the predictive coding comprises:

delaying a first line of the composite video signal, and

subtracting a second line of the composite video signal from the first line of the composite video signal to create the video predictive coded video signal; and

transmitting the video predictive coded multimedia signal over the network substantially concurrently with the performing step.

19. (Previously Presented) The method according to claim 18, wherein the network comprises at least one of a Fast Ethernet network and an Ethernet network faster than Fast Ethernet and the uncompressed multimedia signal comprises at least one of a composite and a digital video signal.

20. (Original) The method according to claim 19, further comprising:

reserving a portion of an Ethernet bandwidth for channel allocation; assigning a channel allocation priority to the composite video signal; and reserving a channel path for the composite video signal.

21. (Canceled)

22. (Original) The method according to claim 18, further comprising extracting a synchronization signal from the multimedia signal, wherein the performing step performs video predictive coding in synchronization with the synchronization signal.

23. (Previously Presented) The method according to claim 18, further comprising:
extracting a synchronization signal from the uncompressed multimedia signal;
converting the uncompressed multimedia signal from analog to digital in
synchronization with the synchronization signal to create a digital multimedia signal; and
buffering the digital multimedia signal in synchronization with the
synchronization signal.

24. (Previously Presented) The method according to claim 18, wherein the performing step creates a video predictive coded multimedia signal represented by half the number of sampling bits of the uncompressed multimedia signal.

25. (Currently Amended) A method of receiving uncompressed multimedia data from a network comprising:
receiving a video predictive coded multimedia signal from the network;
performing video predictive decoding on the video predictive coded multimedia signal to create a multimedia signal, wherein the predictive decoding comprises:
delaying a ~~first~~ line of ~~the composite~~ a decoded video signal, and
subtracting a ~~second~~ line of ~~the composite~~ the video predictive coded
video multimedia signal from the ~~first~~ line of the ~~composite~~ decoded video signal to create the
video predictive decoded video signal; and

outputting the multimedia signal substantially concurrently with the performing step.

26. (Original) The method according to claim 25, wherein the network comprises at least one of a Fast Ethernet network and an Ethernet network faster than Fast Ethernet and the multimedia signal comprises a composite video signal.

27. (Original) The method according to claim 26, wherein the receiving step further comprises receiving the video predictive coded multimedia signal from a reserved channel path of the Ethernet network.

28. (Canceled)

29. (Original) The method according to claim 25, further comprising extracting a synchronization signal from the video predictive coded multimedia signal, wherein the outputting step outputs the multimedia signal in synchronization with the synchronization signal.

30. (Original) The method according to claim 25, further comprising:
extracting a synchronization signal while performing the video predictive decoding;
buffering the multimedia signal in synchronization with the synchronization signal; and
converting the multimedia signal from digital to analog in synchronization with the synchronization signal.

31. (Original) The method according to claim 25, wherein the receiving step receives a video predictive coded multimedia signal.

32-38. (Canceled)

39. (Currently Amended) A method of transmitting and switching multimedia data over at least one of a Fast Ethernet network and an Ethernet network faster than Fast Ethernet comprising:

allocating a portion of an Ethernet bandwidth for channel allocation; receiving
[[e]] an uncompressed multimedia signal;

assigning a channel allocation priority to the uncompressed multimedia signal;

transmitting data-including the channel allocation priority in the allocated portion
of the Ethernet bandwidth;

performing video predictive coding on the uncompressed multimedia signal to
create a video predictive coded multimedia signal, wherein the predictive coding comprises:

delaying a first line of the multimedia signal, and

subtracting a second line of the multimedia signal from the delayed first
line of the multimedia signal to create the video predictive coded multimedia signal; and

transmitting the video predictive coded multimedia signal over the network in real
time.

40. (Previously Presented) The method according to claim 39, wherein the
uncompressed multimedia signal comprises at least one of a composite and a digital video signal.

41. (Original) The method according to claim 39, wherein the transmitting step
further comprises transmitting a data packet including a header and a payload, wherein the
header includes the address of a master switch and the payload includes the channel allocation
priority.

42. (Canceled)

43. (Original) The method according to claim 39, further comprising:
receiving a video predictive coded multimedia signal from the network;
performing video predictive decoding on the video predictive coded multimedia
signal to create a multimedia signal; and

outputting the multimedia signal substantially concurrently with the performing step.

44. (Canceled)